

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

**Status of Claims:**

No claims are currently being added, canceled or amended.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 1-20 remain pending in this application.

**Claim Rejections – Prior Art:**

In the Office Action, claims 1-6, 8-16 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0065805 to Barnes et al. in view of U.S. Patent No. 6,842,460 to Olkkonen et al.; and claims 7, 17 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Barnes in view of Jim Geier, “Overview of the IEEE 802.11 Standard.” These rejections are traversed for at least the reasons given below.

Barnes is directed to providing location based functions and mobile e-commerce. Paragraphs 0110-0115 of Barnes describe that authentication data used to determine whether a user’s voice, face, iris, finger print, or other input matches data stored in memory, whereby that information is provided to a remote computer, which decides whether or not the user of the computer is an authorized user. Clearly, this authentication data is data of the user, and not of a hot spot dealer. Paragraph 0385 of Barnes describes that a device 101 can be programmed to control devices when the user enters or leaves a particular area, or when the device is out of communication range; however, this says nothing about providing authentication data of a hot spot dealer and displaying that authentication data. There is no reason to display such authentication data in the system of Barnes, since his system appears to automatically allow control of a device by another device when that other device enters a particular area.

Still further, the Office Action correctly recognizes that Barnes does not teach or suggest displaying the electric field intensity of a roaming contract relation dealer on a display

means, but incorrectly asserts that Figure 2B of Olkkonen et al. discloses displaying the signal strength on a wireless device. Figure 2B of Olkkonen et al. shows an Ad Hoc discovery menu of ad hoc networks, whereby there is no indication as to whether or not any of these ad hoc networks are the user's own subscribed hot spot dealer or a roaming contract relation dealer.

On page 11 of the Office Action, it asserts that "the authentication process is disclosed by Barnes [0110], therefore 'hot sport dealer' is implicitly disclosed by Barnes." The Office Action further asserts that Barnes disclosure of "different vendors and etc., lines 14-20 of [032] or third party computer system [0111]" corresponds to the claimed roaming contract relation dealer. Applicant respectfully disagrees. Namely, the authentication performed in Barnes is not an authentication of a hot spot dealer, but rather an authentication of a user using a remote computer. Clearly, these are two different entities. Second, the different vendors described in paragraph 032 of Barnes are restaurants and hotels in a vicinity of a user, and have no relationship to a contract that the user may have with those restaurants and hotels. Also, the third party computer system described in paragraph 0111 of Barnes is used to authenticate a user, and thus is not an entity that provides wireless roaming service to a user.

Therefore, for the reasons given above, independent claim 1 (as well as independent claim 11, which recites similar features) is patentable over the combined teachings of Barnes and Olkkonen et al.

With respect to independent claim 18, that claim recites displaying, when the agent authentication means has carried out successful authentication, that the service area is of the successfully authenticated hot spot dealer. As discussed above with respect to the rejection of claim 1, Barnes does not teach or suggest displaying that a service area is that of a successfully authenticated hot spot dealer, and thus that claim is also patentable over the cited art of record (since Olkkonen et al. does not rectify these deficiencies of Barnes).

With respect to the rejection of dependent claim 3, the Office Action asserts that paragraph 0327 of Barnes teaches the "congestion" features recited in that claim. Applicant respectfully disagrees. Namely, paragraph 0327 of Barnes describes that the device 101 provides the user with information concerning traffic with respect to a location where the user is to drive to, whereby this has nothing at all to do with network congestion (rather, it deals with vehicular congestion).

Page 11 of the Office Action attempts to provide some justification for equating vehicular congestion with network congestion, whereby it is asserted in the Office Action that these two types of congestion “are similar in nature, [and that] it would be obvious to one skilled in the art to display the network congestion information in light of displaying of other types of congestions.” In reply, this bizarre justification for equating network congestion with traffic congestion is hard to fathom. For example, is the Examiner asserting that a traffic monitoring system, such as TOM-TOM, would also display the network congestion in a Local Area Network, along with the vehicular traffic in a location where a user is located? The answer is Clearly No. The user in the system of Barnes has no use for seeing any network congestion, and it is well beyond the scope and purpose of that reference, whereby to assert otherwise amounts to improper hindsight reconstruction of the claimed invention.

Accordingly, claim 3 (and claim 13, which recites similar features) is patentable for these additional reasons.

It is noted that the features discussed above with respect to dependent claim 3 are also recited in independent claim 13, whereby that claim is also patentable over the cited art of record.

Further, with respect to the rejection of claim 4, the fact that paragraph 0327 of Barnes provides vehicular traffic congestion information makes it clear that it does not contemplate collecting data link layer protocol data in order to obtain a congestion degree in the service area to output the obtained congestion degree to the display means. Rather, Barnes’s system receive data concerning vehicle congestion which has nothing at all to do with network congestion.

On page 12 of the Office Action, it takes Official Notice that “collecting data link layer level protocol data, obtaining the network congestion degree in the service area, is well known in the art.” While that statement on its face may be true, such information is used by network managers in conventional systems, and is not provided to users attempting to connect to a wireless hot spot. Accordingly, irrespective as to the taking of Official Notice by the Examiner, such taking of Official Notice has no bearing on a user deciding whether or not to connect with a wireless hot spot dealer.

Accordingly, claim 4 (and claim 14, which recites similar features) is patentable for these additional reasons.

Still further, with respect to the rejection of claim 5, the Office Action asserts that the LED described in paragraph 0037 of Barnes of an LCD that is commonly used as a laptop monitor corresponds to the claimed light-emitting means, and that control logic for LCD in a laptop corresponds to the claimed control means. With respect to an LCD for a laptop monitor, that device provides an indication as to the amount of data being input to or output from the laptop, but it does not provide an indication as to the network congestion for a network to which the laptop is to be connected to. This is a clear distinction, since network traffic that is not directed to the laptop (but rather to other laptops) may be causing severe network congestion, whereby the laptop itself might be downloading data from a server that is not otherwise being accessed by other users at a fast rate (and thereby the LED would flicker slowly). In that case, the LED would provide an incorrect indication as to the network congestion, and clearly would not meet the specific features recited in claim 5.

The fact that Barnes describes an LCD for providing an indication of the speed of downloading information to a laptop falls well short of providing a visual indication of the congestion in the entire network that the laptop is connected to (along with other laptops).

Accordingly, claim 5 (and claim 15, which recites similar features) is patentable for these additional reasons.

Lastly, claims 19 and 20 recite features concerning discerning network congestion, whereby such features (see page 19 of the specification) are not taught or suggested by the cited art of record, when taken as a whole.

The fact that Geier describes a CTS frame and an ACK frame on page 17 of that reference falls well short of the claimed use of such frames to measure frequency of reception that is transmitted by an access point.

**Conclusion:**

Since all of the issues raised in the Office Action have been addressed in this Reply, Applicant believes that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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FOLEY & LARDNER LLP  
Customer Number: 22428  
Telephone: (202) 945-6014  
Facsimile: (202) 672-5399

By Phillip J. Articola

George C. Beck  
Registration No. 38,072

Phillip J. Articola  
Registration No. 38,819